WE CLAIM:

1. A method for treating a catalytically formed crude polyolefin product containing residual catalyst to avoid further reaction in the product and remove residual catalyst therefrom, said method comprising:

intimately admixing crude residual catalyst containing polyolefin product and a first aqueous media containing a catalyst killing agent to thereby form a first intimately admixed two phase, gravity separable mixture;

introducing said first two phase mixture into a first settlement zone and allowing the same to settle in said first zone under the influence of gravity to present an upper partially washed crude polyolefin product phase and a first lower aqueous phase containing dissolved catalyst salts;

withdrawing said first lower aqueous phase from said first settlement zone and recirculating a first portion thereof and introducing the same into said first two phase mixture for inclusion as part of said first aqueous media;

directing a second portion of said first lower aqueous phase to a drain for disposal or reclamation;

introducing a first quantity of make-up water into said first two phase mixture for inclusion as part of said first aqueous media;

withdrawing said partially washed crude polyolefin product phase from said first settlement zone and intimately admixing the same with a second aqueous media to thereby form a second intimately admixed two phase, gravity separable mixture;

introducing said second two phase admixture into a second settlement zone and allowing the same to settle in said second zone under the influence of gravity to present an upper more fully washed crude polyolefin product phase and a second lower aqueous phase;

withdrawing said second lower aqueous phase from said second settlement zone and recirculating a first portion thereof and introducing the same into said second two phase mixture for inclusion as part of said second aqueous media;

directing a second portion of said second lower aqueous phase to a drain for disposal or reclamation;

removing said more fully washed crude polyolefin product phase from said second settlement zone; and

introducing a second separate quantity of make-up water into said second two phase mixture for inclusion as part of said second aqueous media.

2. A method as set forth in claim 1, wherein said catalyst comprises BF_3 and said catalyst killing agent comprises NH_4OH.

3. A method as set forth in claim 1, wherein said intimately admixing operations are performed using centrifugal pumps.

4. A method as set forth in claim 1, wherein said make-up water comprises demineralized water.

5. A method as set forth in claim 1, wherein said catalyst killing agent is maintained in said first aqueous media at a level which is in excess relative to the amount needed to completely kill the catalyst.

6. A method for washing a crude polyolefin product to remove residual catalyst therefrom, said method comprising:

forming a first intimately admixed two phase admixture comprising a crude olefin polymerization product containing residual catalyst and a first aqueous media containing a catalyst killing agent;

introducing said first two phase admixture into a first settlement zone and causing said first two phase admixture to settle in said zone under the influence of gravity to present an upper partially washed crude polyolefin product phase and a first lower aqueous phase containing dissolved catalyst salts;

removing said first lower aqueous phase from said first settlement zone and recirculating a first portion thereof for inclusion in said first two phase admixture as part of said first aqueous media;

directing a second portion of said first lower aqueous phase to a drain for disposal or reclamation;

removing said partially washed crude polyolefin product phase from said first settlement zone and intimately admixing the same with a second aqueous media to thereby form a second two phase admixture;

introducing said second two phase admixture into a second settlement zone and causing said second two phase admixture to settle therein under the influence of gravity to present an upper intermediately washed crude polyolefin product phase and a second lower aqueous phase;

removing said second lower aqueous phase from said second settlement zone and recirculating a first portion thereof for inclusion in said second two phase admixture as part of said second aqueous media;

directing a second portion of said second lower aqueous phase to a drain for disposal or reclamation;

removing said intermediately washed crude polyolefin product phase from said second settlement zone and admixing the same with a third aqueous media to thereby form a third two phase admixture;

introducing said third two phase admixture into a third settlement zone and causing said third two phase admixture to settle therein under the influence of gravity to present an upper more fully washed crude polyolefin product phase and a third lower aqueous phase;

removing said third lower aqueous phase from said third settlement zone and recirculating a first portion thereof for inclusion in said third two phase admixture as part of said third aqueous media;

recirculating a second portion of said third lower aqueous phase for inclusion in said second intimately admixed two phase admixture as part of said second aqueous media;

introducing a first quantity of make-up water into said first intimately admixed two phase admixture for inclusion therein as part of said first aqueous media; and

introducing a second separate quantity of make-up water into said third intimately admixed two phase admixture for inclusion therein as part of said third aqueous media.